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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/690,674	10/22/2003	Steven A. Roye		6137

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05/01/2008

EXAMINER

RYAN, PATRICK A

ART UNIT	PAPER NUMBER
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2623

MAIL DATE	DELIVERY MODE
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05/01/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/690,674	Applicant(s) ROYE, STEVEN A.	
	Examiner PATRICK A. RYAN	Art Unit 2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/22/2003</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This is a First Office Action in response to Application Serial Number (10/690674), filed October 22, 2003. As originally filed, Claims 1 through 26 are presented for examination.

Claim Objections

2. Claims 17 through 26 objected to because of the following informalities: Claims 17 and 18 are stated twice within the listing of claims. For the purpose of this Office Action, the Examiner has interpreted the second Claim 17 to have indented to be Claim 19 and the claims following Claim 19 to be listed in sequential order through to Claim 26. Based on the renumbering of the second Claim 17 through Claim 26, the Examiner has interpreted Claim 19 to be dependent from Claim 15, Claim 21 to be dependent from Claim 20, Claim 23 to be dependent from Claim 15, and Claim 24 to be dependent from Claim 23. Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-4, 7-11, 15, 18-22, and 26 rejected under 35 U.S.C. 102(e) as being anticipated by Kondo et al United States Patent Application Publication (2004/0117815 A1), hereinafter "Kondo".

4. In regards to Claim 1, Kondo teaches a method comprising recording a first length of time of a first positive audience response (characteristic amount 304 of Fig. 25C is voice data recorded from an audience. When characteristic amount exceeds the level of threshold La3 a determination of laughing is estimated, as disclosed in Paragraph [0124]) of one or more test subjects to a presentation (audience 60, as shown in Fig. 2).

5. In regards to Claim 2, Kondo teaches the method of Claim 1 wherein the presentation is a performance (audience 60 in presented with a movie or TV program on display device 61 of Fig. 2, as described in Paragraph [0094]).

6. In regards to Claim 3, Kondo teaches the method of Claim 1 wherein first positive audience response is audible (estimation of "beating time with hands", "clapping", or "laughing", as disclosed in Paragraphs [0119-0124]).

7. In regards to Claim 4, Kondo teaches the method of Claim 1 further comprising displaying the length of time (as shown in Fig. 25C, characteristic amount 304 is plotted as a function of time).

8. In regards to Claim 7, Kondo teaches the method of Claim 1 wherein the first positive audience response is comprised of laughter of the one or more test subjects (estimation of state of laughing, as disclosed in Paragraph [0124]).

9. In regards to Claim 8, Kondo teaches the method of Claim 1 wherein the accumulated amount of time of positive audience response is comprised of an accumulated amount of time of laughter of the one or more test subjects (characteristic amount 304, representing an audible response, is recorded over duration of time 't' as shown in Fig. 25C, as described in Paragraph [0124]).

10. In regards to Claims 9 and 10, Kondo teaches the method of Claim 1 further comprising determining and displaying an accumulated amount of time of positive audience response of one or more test subjects for a first minute of the presentation or for a second minute of a presentation (Kondo discloses a variable size window of time in which to analyze the audience response. This variable window of time is dependent upon the periodicity of the audience response, as disclosed in Paragraph [106]. Therefore Kondo's characteristic amount may be measure as a function of time in minutes).

11. In regards to Claim 11, Kondo teaches the method of Claim 1, further comprising determining and displaying an average amount of time of positive audience response of one or more test subjects per minute of the presentation (volumes of sounds are averaged and compared with threshold values, as disclosed in Paragraph [0127]. In addition, characteristic amount 805 shown in Fig. 52 demonstrates the display of a ratio of two characteristic amounts as a function of time, as described in [0181]).

12. In regards to Claim 15, Kondo teaches an apparatus comprising a performance timer for keeping track of the length of time of a performance (frame range decision unit 3231 of Fig. 12 determines the time window used to analyze the audience response, as disclosed in Paragraph [0106]); a positive audience response timer for keeping track of the length of time of a positive audience response of an audience comprised of one or more test subjects, to one or more portions of the performance (integration estimation unit 40 of Fig. 1, estimates the state of the audience using characteristic amounts, as disclosed in Paragraph [0119]. This estimation involves the tracking of response within the time window of 22C1, as shown in Fig. 25C); a computer processor (CPU 701, as shown in Fig. 27 and described in Paragraph [0132]); and a computer monitor (Display unit 716, as shown in Fig. 27 and described in Paragraph [0132]); wherein the computer processor displays a running time of the performance timer and a running time of the positive audience response timer on the computer monitor (output unit 50 of Fig. 1 displays the estimated result, as disclosed in Paragraph [0128]. In addition, the estimated result, such as characteristic amount 304 contains a total time period, shown along the time access, and a time period of positive response, shown when characteristic amount 304 exceeds threshold La3, as described in Paragraph [0124]).

13. In regards to Claim 18, Kondo teaches the apparatus of Claim 15 wherein the positive audience response is comprised of laughter of the one or more test subjects in the audience (estimation of state of laughing, as disclosed in Paragraph [0124]).

14. In regards to Claim 19, Kondo teaches the apparatus of Claim 15 wherein the accumulated positive audience response time is comprised of an accumulated amount

of time of laughter of the one or more test subjects (characteristic amount 304, representing an audible response, is recorded over duration of time 't' as shown in Fig. 25C, as described in Paragraph [0124]).

15. In regards to Claim 20, Kondo teaches the apparatus of Claim 15 wherein the computer processor determines and displays on the computer monitor an accumulated amount of time of positive audience response of the one or more test subjects for a first minute of the performance (Kondo discloses a variable size window of time in which to analyze the audience response. This variable window of time is dependent upon the periodicity of the audience response, which is determined by frame range decision unit 3231, as disclosed in Paragraph [106]. Therefore Kondo's characteristic amount may be measure as a function of time in minutes.).

16. In regards to Claim 21, Kondo teaches the apparatus of Claim 21 wherein the computer processor determines and displays on the computer monitor the accumulated amount of time of positive audience response of one or more test subjects for a second minute of the performance (Kondo discloses a variable size window of time in which to analyze the audience response. This variable window of time is dependent upon the periodicity of the audience response, which is determined by frame range decision unit 3231, as disclosed in Paragraph [106]. Therefore Kondo's characteristic amount may be measure as a function of time in minutes.).

17. In regards to Claim 22, Kondo teach the apparatus Claim 15 wherein the computer processor determines and displays on the computer monitor an average amount of time of positive audience response of the one or more test subjects per

minute of the performance (Volumes of sounds are averaged and compared with threshold values, as disclosed in Paragraph [0127]. In addition, characteristic amount 805 shown in Fig. 52 demonstrates the display of a ratio of two characteristic amounts as a function of time, as described in [0181]. These functions are performed by component ratio calculation unit 823, as described in Paragraph [0164]).

18. In regards to Claim 26, Kondo teaches the apparatus of Claim 15 wherein the positive audience response is audible (estimation of "beating time with hands", "clapping", or "laughing", as disclosed in Paragraphs [0119-0124]).

Claim Rejections - 35 USC § 103

19. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

20. Claims 5, 6, 12, 13, 14, 16, 17, 23, 24, and 25 rejected under 35 U.S.C. 103(a) as being unpatentable over Kondo in view of Eldering et al., United States Patent (6,457,010 B1), hereinafter "Eldering".

21. In regards to Claim 5, 6, 16, and 17, Kondo teaches the method of Claim 1 and apparatus of Claim 15 further comprising determining an accumulated amount of time of positive audience response of one or more test subjects to a presentation (characteristic amount 304, representing an audible response, is recorded over duration of time 't' as shown in Fig. 25C, as described in Paragraph [0124]). In addition, Kondo teaches

tracking the total time of the presentation (as shown in Fig. 25C, characteristic amount 304 is plotted as a function of time). Kondo also teaches displaying the time of positive audience response and the total time of presentation (output unit 50 of Fig. 1 displays the estimated result, as disclosed in Paragraph [0128]. In addition, the estimated result, such as characteristic amount 304 contains a total time period, shown along the time access, and a time period of positive response, shown when characteristic amount 304 exceeds threshold La3, as described in Paragraph [0124]).

Kondo does not teach determining a ratio of the accumulated amount of time of positive audience response divided by the length of total time of the presentation; and displaying the ratio on a computer monitor or wherein the ratio is displayed as a percentage of total time of the presentation.

In a similar field of invention Eldering discloses a user monitoring and profiling method that involves tracking user characteristics such as the time duration that a program is watched and the volume at which the program is listened. Eldering uses a number of probabilistic techniques in order to profile the user's viewing habits (Eldering Abstract). Eldering monitors the duration of time that a use watches a given program over a 24 hour period based on the occurrence of channel changes (as shown in Fig. 5 with reference to Col. 9 Lines 13-24) and records the time durations for each channel and the total time watched (as shown in minutes watched 702 of Fig. 7 with reference to Col. 9 Lines 33-47). Eldering then uses the statistical data of Fig. 7 to develop a representation of a user's interests in the form of a probability, which ranges from 0 to 1, as shown in Fig. 9A-9F.

In addition Eldering teaches a processor, system control unit 200 of Fig. 2, which monitors channel selection times, the time of channel changes, and the number of channel changes occurring during a viewing time (as described in Col. 7 Lines 23-67 and Col. 8 Lines 1-31).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combined the audience state estimation method of Kondo with the method of characterizing a user's action using statistical measures, such as ratio, as taught by Eldering because statistical measures are an effective way to monitor a user or group of users when each user can not be specifically identified (as Eldering discloses in Col. 2 Lines 23-31). The Examiner also notes that representing a probability on a scale from 0 to 1 can equivalently be represent as a ratio (0/0 to 1/1) or a percent (0% to 100%) and that these representations are well known in the art of user profiling.

22. In regards to Claims 12, 13, 23, and 24 Kondo teaches the method of Claim 1 and apparatus of Claim 15. Kondo further teaches detecting the sound periodicity from the audience based on an audio signal (as disclosed in Paragraph [0014]), but does not teach determining and displaying the total number of positive audience responses with in the first or second minute.

In a similar field of invention Eldering discloses a user monitoring and profiling method that involves tracking user characteristics such as the time duration that a program is watched and the volume at which the program is listened. Eldering uses a number of probabilistic techniques in order to profile the user's viewing habits (Eldering Abstract). Eldering monitors the duration of time that a use watches a given program

over a 24 hour period based on the occurrence of channel changes (as shown in Fig. 5 with reference to Col. 9 Lines 13-24) and records the time durations for each channel and the total time watched (as shown in minutes watched 702 of Fig. 7 with reference to Col. 9 Lines 33-47). Eldering records the instants in time in which the user changes the channel (as shown in Col. 602 of Fig. 6). These time durations are then used to determine the frequency of channel changes made by the user and the total number of channel changes made by the user (as shown in channel changes 704 of Fig. 7).

In addition Eldering teaches a processor, system control unit 200 of Fig. 2, which monitors channel selection times, the time of channel changes, and the number of channel changes occurring during a viewing time (as described in Col. 7 Lines 23-67 and Col. 8 Lines 1-31).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combined the audience state estimation method using sound periodicity as taught by Kondo with the method of characterizing a user's action using statistical measures, such as channel changing frequency and time duration between channel changes, as taught by Eldering because statistical measures are an effective way to monitor a user or group of users when each user can not be specifically identified (as Eldering discloses in Col. 2 Lines 23-31).

23. In regards to Claim 14 and 25, Kondo teaches the method of Claim 1 and the apparatus of Claim 15. Kondo further teaches detecting the sound periodicity from the audience based on an audio signal (as disclosed in Paragraph [0014]), but does not

teach determining and displaying the average number of positive audience responses of the one or more test subjects per minute of the presentation.

In a similar field of invention Eldering discloses a user monitoring and profiling method that involves tracking user characteristics such as the time duration that a program is watched and the volume at which the program is listened. Eldering uses a number of probabilistic techniques in order to profile the user's viewing habits (Eldering Abstract). Eldering monitors the duration of time that a use watches a given program over a 24 hour period based on the occurrence of channel changes (as shown in Fig. 5 with reference to Col. 9 Lines 13-24) and records the time durations for each channel and the total time watched (as shown in minutes watched 702 of Fig. 7 with reference to Col. 9 Lines 33-47). Eldering records the instants in time in which the user changes the channel (as shown in Col. 602 of Fig. 6). These time durations are then used to determine the frequency of channel changes made by the user and the total number of channel changes made by the user (as shown in channel changes 704 of Fig. 7). In addition, Eldering tracks the volume changes made by the user as a function of time (as shown in Fig. 5 and disclosed in Col. 9 Lines 13-24) and records the average volume selection over a given time period (as shown in Fig. 7 with respect to Time of Day 700 and Average Volume 706, as described in Col. 9 Lines 33-47).

In addition Eldering teaches a processor, system control unit 200 of Fig. 2, which monitors channel selection times, the time of channel changes, and the number of channel changes occurring during a viewing time (as described in Col. 7 Lines 23-67 and Col. 8 Lines 1-31).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combined the audience state estimation method using sound periodicity as taught by Kondo with the method of characterizing a user's action using statistical measures, such as average level of volume monitored over a duration of time, as taught by Eldering because statistical measures are an effective way to monitor a user or group of users when each user can not be specifically identified (as Eldering discloses in Col. 2 Lines 23-31).

Conclusion

24. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

25. Cliff et al. United States Patent (6,885,304 B2) teach an audience monitoring system in which audible crowd reactions are used to make alterations to a performance, such as a play list of songs, based on the positive or negative reactions of the audience.

26. Lightfoot United Kingdom Patent Application (GB 2269670 A) teaches monitoring an audible audience response to a performance, such as a talent competition. Lightfoot uses the audience response to automatically judge the performance by displaying a score.

27. Any inquiry concerning this communication or earlier communications from the examiner should be directed to PATRICK A. RYAN whose telephone number is

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(571)270-5086. The examiner can normally be reached on Mon to Thur, 8:00am - 5:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Scott Beliveau can be reached on (571) 272-7343. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

28. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/P. A. R./
Examiner, Art Unit 2623
Wednesday, April 30, 2008

/Scott Beliveau/
Supervisory Patent Examiner, Art Unit 2623